

Appl. No. 10/730,257
Amendment dated June 7, 2007
Reply to Office Action of March 8, 2007

AMENDMENTS TO THE DRAWINGS:

The attached sheet of drawings includes a change to Figures 2 and 5. The replacement sheets, which includes Figures 2 and 5, replace the original sheets including Figures 2 and 5.

Attachment: two (2) replacement sheets

REMARKS

In the March 8, 2007 Office Action, the drawings were objected to, claims 33, 34, 43, and 52 were objected to, and claims 30-58 stand rejected in view of prior art. Further, claims 1-29 and 59-67 were withdrawn from examination for being directed to non-elected embodiments. No other objections or rejections were made in the Office Action.

Status of Claims and Amendments

In response to the March 8, 2007 Office Action, Applicant has amended claims 33, 34, 43, and 52 as indicated above. Thus, claims 1-67 are pending, with claims 1, 11, 19, 29, 30, 36, 40, 45, 49, 54, 58, 59, and 67 being the only independent claims. Recexamination and reconsideration of the pending claims are respectfully requested in view of above amendments and the following comments.

Election of Species

In item 1 of the Office Action, Applicant' election without traverse was acknowledged. Thus, non-elected claims 1-29 and 59-67 were withdrawn from further consideration.

Drawings

In items 2-4 of the Office Action, the drawings were objected to because a leader line was missing in Fig. 2 and because a reference character 13 was not mentioned in the description. In response, Applicant has submitted herewith corrected drawings. Specifically, Applicant has added a lead line in Fig. 2 and deleted character 13 in Fig. 5. Replacement sheets of Figures 2 and 5 are attached hereto. Applicant respectfully requests withdrawal of the objections.

Claim Objection

In item 5 of the Office Action, claims 33, 34, 43, and 52 were objected to because of the informalities.

Specifically, claim 33 recited "process that permit switching." In response, Applicant has amended to recite "process that permits switching."

With regards to claims 34, 43, and 52, the Office Action stated that the EL backlight should be amended to LED. In response, Applicant has amended to recite an alarm vibration.

Withdrawal of the objections is respectfully requested.

Rejections - 35 U.S.C. § 102

In item 6 of the Office Action, claims 30-58 stand rejected under 35 U.S.C. §102(b) as being anticipated by Japanese Patent No. 11-020787 (Furuta). In response, Applicant respectfully traverses the rejection.

In particular, with regards to claim 30, the Office Action states that Furuta discloses an oxygen partial pressure calculating and monitoring unit. However, Applicant respectfully asserts that Furuta discloses in paragraph [0027] a body nitrogen amount calculating means 60, which calculates nitrogen amount in a body, as translated. Applicant asserts that the body nitrogen amount calculating means of Furuta is different from the oxygen partial pressure calculating and monitoring unit of claim 30 of the present application because the oxygen partial pressure calculating and monitoring unit prohibits switching from a first cylinder to a second cylinder when a diver selects the second cylinder while using the first cylinder upon a determination possibility of oxygen deficiency or oxygen poisoning if the second cylinder were to be used. It is well settled under U.S. patent law that for a reference to anticipate a claim, the reference must disclose each element of the claim within the reference. Therefore, Applicant respectfully asserts that claim 30 is not anticipated by the prior art of record. Withdrawal of this rejection is respectfully requested.

With regards to claims 31-35, Applicant believes that the dependent claims 31-35 are also allowable over the prior art of record in that they depend from independent claim 30, and

therefore are allowable for the reasons stated above. Applicant respectfully requests withdrawal of the rejections.

With regards to claims 40, 49, and 58, Applicant asserts that independent claims 40, 49, and 58 are also allowable for the same or similar reasons that claim 30 is allowable as stated above. Applicant respectfully requests withdrawal of the rejections.

With regards to claims 41-44 and 50-53, Applicant believes that the dependent claims 41-44 and 50-53 are also allowable over the prior art of record in that they respectively depend from independent claims 40 and 49, and therefore are allowable for the reasons stated above. Applicant respectfully requests withdrawal of the rejections.

With regard to claim 36 of the present application, the Office Action also states that Furuta discloses a switching condition storage unit of claim 36 of the present application. However, Applicant respectfully asserts that Furuta appears to disclose in paragraph [0082] a mix ratio forcibly setting means 97, as translated, that set mix ratio of oxygen and mix ratio of nitrogen content of the air. Applicant respectfully asserts the mix ratio forcibly setting means 97 of Furuta is different from the switching condition storage unit of claim 36 of the present application because the switching condition storage unit stores at least one switching condition during diving for each of a first and second cylinder while the mix ratio forcibly setting means 97 of Furuta does not. It is well settled under U.S. patent law that for a reference to anticipate a claim, the reference must disclose each element of the claim within the reference. Therefore, Applicant respectfully submits that claim 36 is not anticipated by the prior art of record. Withdrawal of this rejection is respectfully requested.

Moreover, with regards to claim 37-39, Applicant believes that the dependent claims 37-39 are also allowable over the prior art of record in that they depend from independent claim 36, and therefore are allowable for the reasons stated above. Applicant respectfully requests withdrawal of the rejections.

With regards to claims 45 and 54, Applicant asserts that independent claims 45 and 54 are also allowable for the same or similar reasons that claim 36 is allowable as stated above. Applicant respectfully requests withdrawal of the rejections.

Moreover, with regards to claims 46-48 and 55-57, Applicant believes that the dependent claims 46-48 and 55-57 are also allowable over the prior art of record in that they depend from independent claims 45 and 54 respectively, and therefore are allowable for the reasons stated above. Applicant respectfully requests withdrawal of the rejections.

Double Patenting Rejection

In items 7-8 of the Office Action, claims 35, 38, 44, 47, 53, and 56 stand rejected on the ground of nonstatutory double patenting as being unpatentable over U.S. Patent No. 7,144,198 (Hirose et al.). In response, Applicant respectfully traverses the rejections.

The Office Action states that claims 35, 38, 44, 47, 53, and 56 are rejected as being anticipated on the ground of obviousness-type double patenting because all the claimed elements in claims 35, 38, 44, 47, 53, and 56 of the present application are found in claims 1, 2, 18, 22, and 23 of Hirose et al.

Firstly, Applicant respectfully asserts that the double patenting rejections are improper because only dependent claims are rejected. Applicant respectfully asserts that the independent claims upon which the rejected claims depend have all of the limitations of the dependent claims except those recited in the dependent claims themselves. Applicant asserts that if the dependent claims can be properly rejected for reciting the elements of the aforementioned claims of Hirose et al., then the independent claims can be properly rejected for the same reason. Regardless, Applicant respectfully disagrees that all of the elements recited in the aforementioned claims of Hirose et al. are recited in the aforementioned claims of the present application.

Specifically, claim 35 of the present application includes all the limitations of claim 1 of the present application including the oxygen partial pressure calculating and monitoring unit. Applicant asserts that none of the claims 1, 2, 18, 22, and 23 of Hirose et al. discloses these limitations. Claim 38 of the present application includes all the limitations of claim 36 of the present application including a switching condition storage unit. Applicant asserts that none of the claims 1, 2, 18, 22, and 23 of Hirose et al. discloses these limitations. Claim 44 of the present application includes all the limitations of claim 40 of the present application including performing an oxygen partial pressure calculating and monitoring step for calculating and monitoring oxygen partial pressure. Applicant asserts that none of the claims 1, 2, 18, 22, and 23 of Hirose et al. discloses these limitations. Claim 47 of the present application includes all the limitations of claim 45 of the present application including performing a switching condition storing step for storing at least one switching condition during diving for each of said first and second cylinders. Applicant asserts that none of the claims 1, 2, 18, 22, and 23 of Hirose et al. discloses these limitations. Claim 53 of the present application includes all the limitation of claim 49 of the present application including calculating and monitoring oxygen partial pressure. Applicant asserts that none of the claims 1, 2, 18, 22, and 23 of Hirose et al. discloses these limitations. Further, claim 56 of the present application includes all the limitations of claim 54 of the present application including storing at least one switching condition during diving for each of said first and second cylinders. Applicant asserts that none of the claims 1, 2, 18, 22, and 23 of Hirose et al. discloses these limitations. Therefore, Applicant respectfully asserts that claims 35, 38, 44, 47, 53, and 56 of the present application are not anticipated or obvious by Hirose et al.

Withdrawal of this rejection is respectfully requested.

Prior Art Citation


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In the Office Action, additional prior art references were made of record. Applicant believes that these references do not render the claimed invention obvious.

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In view of the foregoing amendment and comments, Applicant respectfully asserts that claims 30-58 are now in condition for allowance. Reexamination and reconsideration of the pending claims are respectfully requested.

Respectfully submitted,



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